

**Complete listing of claims:**

Claim 1 (cancelled).

Claim 2 (previously presented) A compound according to claim 18 wherein R<sup>1</sup> is C<sub>1</sub>-C<sub>6</sub> alkyl which may optionally be substituted with one hydroxy, fluoro, CF<sub>3</sub>, or C<sub>1</sub>-C<sub>4</sub> alkoxy group and may optionally contain one double or triple bond provided that at least two carbons are present in the C<sub>1</sub>-C<sub>6</sub> alkyl group; and R<sup>2</sup> is benzyl, C<sub>1</sub>-C<sub>6</sub> alkyl, which may optionally contain one double or triple bond provided that at least two carbons are present, where said C<sub>1</sub>-C<sub>6</sub> alkyl and the phenyl moiety of said benzyl may optionally be substituted with one fluoro CF<sub>3</sub>, or C<sub>1</sub>-C<sub>2</sub> alkyl, C<sub>1</sub>-C<sub>2</sub> alkoxy or chloro group.

Claim 3 (previously presented) A compound according to claim 18 wherein: R<sup>3</sup> is methyl, ethyl, chloro or methoxy; R<sup>4</sup> is methyl or ethyl, G is hydrogen, methyl, ethyl, or E=G is C=O or C=S and R<sup>5</sup> is phenyl, pyridyl, or pyrimidyl which is substituted with more than two substituents which are independently selected from C<sub>1</sub>-C<sub>4</sub> alkyl and -O(C<sub>1</sub>-C<sub>4</sub> alkyl), (C<sub>1</sub>-C<sub>4</sub> alkyl)-O-(C<sub>1</sub>-C<sub>2</sub> alkyl), CF<sub>3</sub>, OCF<sub>3</sub>, -CHO, (C<sub>1</sub>-C<sub>4</sub> alkyl)-OH, CN, Cl, F, Br, I and NO<sub>2</sub>, wherein one of the carbon-carbon single bonds of each of the foregoing (C<sub>1</sub>-C<sub>4</sub>)alkyl, groups having at least two carbons may optionally be replaced by a carbon-carbon double or triple bond.

Claim 4 (cancelled)

Claims 5, 6 and 7 (cancelled).

Claim 8 (previously presented) A compound according to claim 18 wherein F is NR<sup>4</sup>.

Claim 9 (previously presented) A compound as claimed in claim 18 wherein F is CHR<sup>4</sup>.

Claim 10 (cancelled)

Claim 11 (cancelled).

Claim 12 (previously presented) A compound according to claim 18 wherein E is carbon.

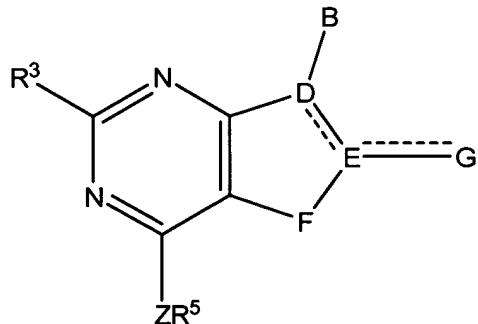
Claim 13 (previously presented) A compound according to claim 18 wherein E is nitrogen.

Claim 14 (cancelled)

Claims 15, 16 and 17 (cancelled).

Claim 18 (currently amended)

A compound of the formula



wherein the dashed lines represent optional double bonds;

B is  $-NR^1R^2$ ,  $-CR^1R^2R^{10}$ ,  $-C(=CR^2R^{11})R^1$ ,  $-NHCR^1R^2R^{10}$ ,  $-OCR^1R^2R^{10}$ ,  $-SCR^1R^2R^{10}$ ,  $CR^2R^{10}NHR^1$ ,  $-CR^2R^{10}OR^1$ ,  $-CR^2R^{10}SR^1$  or  $-COR^2$ ;

E is nitrogen, CH or carbon;

D is nitrogen and is single bonded to all atoms to which it is attached, or D is carbon and is double bonded to E, or D is CH and is single bonded to E;

F is  $CHR^4$  or  $NR^4$ ; provided that either 1) exactly one of D or E is nitrogen and F is  $CHR^4$  or 2) F is  $NR^4$  and neither D nor E is nitrogen;

G, when single bonded to E is hydrogen,  $C_1-C_4$  alkyl,  $-S(C_1-C_4$  alkyl),  $-O(C_1-C_4$  alkyl),  $NH_2$ ,  $-NH(C_1-C_4$  alkyl) or  $-N(C_1-C_2$  alkyl)( $C_1-C_4$  alkyl) wherein each of the  $C_1-C_4$  alkyl groups of G may optionally be substituted by one hydroxy,  $-O(C_1-C_2$  alkyl) or fluoro group; and G when double bonded to E is oxygen, sulfur or NH; and G, when E is nitrogen and double bonded to D, is absent;

$R^1$  is hydrogen,  $C_1-C_6$  alkyl optionally substituted with one or two substituents  $R^8$  independently selected from hydroxy, fluoro, chloro, bromo, iodo,  $C_1-C_4$  alkoxy,  $CF_3$ ,  $-C(=O)O-$  ( $C_1-C_4$ )alkyl,  $-OC(=O)(C_1-C_4)$  alkyl,  $OC(=O)N(C_1-C_4$  alkyl)( $C_1-C_2$  alkyl),  $-NHCO(C_1-C_4$  alkyl),  $-C00H$ ,  $-COO(C_1-C_4$  alkyl),  $-CONH(C_1-C_4$  alkyl),  $-CON(C_1-C_4$  alkyl)( $C_1-C_2$  alkyl),  $-S(C_1-C_4$  alkyl),  $-CN$ ,  $NO_2$ ,  $-SO(C_1-C_4$  alkyl),  $-S0_2(C_1-C_4$  alkyl),  $-SO_2NH(C_1-C_4$  alkyl),  $SO_2N(C_1-C_4$  alkyl)( $C_1-C_2$  alkyl), wherein a carbon-carbon single bond of each of the  $C_1-C_4$  alkyl groups in the foregoing  $R^1$  groups having at least two carbons may optionally be replaced with a carbon-carbon double or triple bond, and one or two carbon-carbon single bonds of each of the  $C_1-C_4$  alkyl groups in the foregoing  $R^1$  groups having four carbon atoms may optionally be replaced with a carbon-carbon double or triple bond;  $R^2$  is  $C_1-C_{12}$  alkyl wherein one carbon-carbon single bond of any said alkyl group having at least two carbons, one or two carbon-carbon single bonds of any alkyl having at least four carbons, and from one to three carbon-carbon single bonds of any alkyl having at least six carbons may optionally be replaced with a carbon-carbon double or triple bond; or  $R^2$  is aryl or ( $C_1-C_4$  alkylene)aryl, wherein said aryl and the aryl moiety of said ( $C_1-C_4$  alkylene)aryl is selected from phenyl, naphthyl, thienyl, benzothienyl, pyridyl, quinolyl, pyrazinyl, pyrimidinyl, imidazolyl, furanyl, benzofuranyl, benzothiazolyl, isothiazolyl, pyrazolyl, pyrrolyl, indolyl, pyrrolopyridyl, oxazolyl and benzoxazolyl; or  $R^2$  is  $C_3-C_8$  cycloalkyl or ( $C_1-C_6$  alkylene)( $C_3-C_8$  cycloalkyl), wherein one or two of the carbon atoms of said cycloalkyl and the 5 to 8 membered cycloalkyl moieties of said ( $C_1-C_6$  alkylene)( $C_3-C_8$  cycloalkyl) may optionally and independently be replaced by an oxygen or sulfur atom or by  $NZ^2$  wherein  $Z^2$  is selected from hydrogen,  $C_1-C_4$  alkyl, benzyl and  $C_1-C_4$  alkanoyl, and wherein each of the foregoing  $R^2$  groups may optionally be substituted with from one to three substituents independently selected from chloro, fluoro, hydroxy and  $C_1-C_4$  alkyl, or with one substituent selected from bromo, iodo,  $C_1-C_6$  alkoxy,  $-OC(=O)(C_1-C_6$  alkyl),  $OC(=O)N(C_1-C_4$  alkyl)( $C_1-C_2$  alkyl),  $-S(C_1-C_6$  alkyl), amino,  $-NH(C_1-C_2$  alkyl),  $-N(C_1-C_2$  alkyl)( $C_1-C_4$  alkyl),  $-N(C_1-C_4$  alkyl)-CO-( $C_1-C_4$  alkyl),  $-NHCO(C_1-C_4$  alkyl),  $-COOH$ ,

- COO(C<sub>1</sub>-C<sub>4</sub> alkyl), -CONH(C<sub>1</sub>-C<sub>4</sub> alkyl), CON(C<sub>1</sub>-C<sub>4</sub> alkyl)(C<sub>1</sub>-C<sub>2</sub> alkyl), -SH, -CN, -NO<sub>2</sub>, -SO(C<sub>1</sub>-C<sub>4</sub> alkyl), -S0<sub>2</sub>(C<sub>1</sub>-C<sub>4</sub> alkyl), -SO<sub>2</sub>NH(C<sub>1</sub>-C<sub>4</sub> alkyl) and -SO<sub>2</sub>N (C<sub>1</sub>-C<sub>4</sub> alkyl)(C<sub>1</sub>-C<sub>2</sub> alkyl);

-NR<sup>1</sup>R<sup>2</sup> may form a 3 to 8 membered ring, said ring consisting of single bonds, wherein, when said ring has from 5 to 8 members, one or two of the ring carbon atoms of such a 5 to 8 membered ring may optionally and independently be replaced by an oxygen or sulfur atom or by NZ<sup>3</sup> wherein Z<sup>3</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, benzyl and C<sub>1</sub>C<sub>4</sub> alkanoyl, and wherein from one to three of the single bonds of such a 3 to 8 membered ring that are carbon-carbon or carbon-nitrogen single bonds may each optionally be replaced by a double bond;

or -CR<sup>1</sup>R<sup>2</sup>R<sup>10</sup> may form a 3 to 8 membered carbocyclic ring, said ring consisting of single bonds, wherein from one to three of the single bonds of such a 3 to 8 membered ring may each optionally be replaced by a double bond;

R<sup>3</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, O(C<sub>1</sub>-C<sub>4</sub> alkyl), chloro, fluoro, bromo, iodo, -CN, -S(C<sub>1</sub>-C<sub>4</sub> alkyl) or -S0<sub>2</sub>(C<sub>1</sub>-C<sub>4</sub> alkyl) wherein each of the (C<sub>1</sub>-C<sub>4</sub> alkyl) moieties in the foregoing R<sup>3</sup> groups may optionally be substituted with one substituent R<sup>9</sup> selected from hydroxy, fluoro and (C<sub>1</sub>-C<sub>2</sub> alkoxy);

each of R<sup>4</sup> is, independently hydrogen, (C<sub>1</sub>-C<sub>6</sub> alkyl), fluoro, chloro, bromo, iodo, hydroxy, cyano, amino, nitro, -O(C<sub>1</sub>-C<sub>4</sub> alkyl), N (C<sub>1</sub>-C<sub>4</sub> alkyl)(C<sub>1</sub>-C<sub>2</sub> alkyl), -S(C<sub>1</sub>-C<sub>4</sub> alkyl), -SO(C<sub>1</sub>-C<sub>4</sub> alkyl), -SO<sub>2</sub>(C<sub>1</sub>-C<sub>4</sub> alkyl), -CO(C<sub>1</sub>-C<sub>4</sub> alkyl), -C(=O)H or C(=O)O (C<sub>1</sub>-C<sub>4</sub> alkyl), wherein one or two of the carbon-carbon single bonds in each of the (C<sub>1</sub>-C<sub>6</sub> alkyl) and (C<sub>1</sub>-C<sub>4</sub> alkyl) moieties in the foregoing R<sup>4</sup> groups may optionally be replaced with a carbon-carbon double or triple bond and wherein each of said (C<sub>1</sub>-C<sub>6</sub> alkyl) and (C<sub>1</sub>-C<sub>4</sub> alkyl) moieties may optionally be substituted with one or two substituents independently selected from hydroxy, amino, C<sub>1</sub>-C<sub>3</sub> alkoxy, dimethylamino, methylamino, ethylamino, -NHC(=O)CH<sub>3</sub>, fluoro, chloro, -CN, -C00H, -C(=O)O(C<sub>1</sub>-C<sub>4</sub> alkyl), -C(=O)(C<sub>1</sub>-C<sub>4</sub> alkyl) and NO<sub>2</sub>;

R<sup>5</sup> is phenyl, naphthyl, thienyl, benzothienyl, pyridyl, quinolyl, pyrazinyl, furanyl, benzofuranyl, benzothiazolyl, benzisothiazolyl, benzisoxazolyl, benzimidazolyl, indolyl, benzoxazolyl or C<sub>3</sub>-C<sub>8</sub> cycloalkyl wherein one or two of the carbon atoms of said cycloalkyl rings that contain at least 5 ring members may optionally and independently be replaced by an oxygen or sulfur atom or by NZ<sup>4</sup> wherein N<sup>4</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub> is alkyl or benzyl; and wherein each of the foregoing R<sup>5</sup> groups is substituted with from one to four substituents wherein one to three of said substituents may be selected, independently, from chloro, C<sub>1</sub>-C<sub>6</sub> alkyl and -O(C<sub>1</sub>-C<sub>6</sub> alkyl) and one of said substituents may be selected from bromo, iodo, formyl, -CN, -CF<sub>3</sub>, -NO<sub>2</sub>, -NH<sub>2</sub>, -NH(C<sub>1</sub>-C<sub>4</sub> alkyl), -N(C<sub>1</sub>-C<sub>2</sub> alkyl)(C<sub>1</sub>-C<sub>6</sub> alkyl), -C(=O)O(C<sub>1</sub>-C<sub>4</sub> alkyl), -C(=O)(C<sub>1</sub>-C<sub>4</sub> alkyl), -COOH, -S0<sub>2</sub>NH(C<sub>1</sub>-C<sub>4</sub> alkyl), -S0<sub>2</sub>N (C<sub>1</sub>-C<sub>2</sub> alkyl) (C<sub>1</sub>-C<sub>4</sub> alkyl), -SO<sub>2</sub>NH<sub>2</sub>, NHSO<sub>2</sub> (C<sub>1</sub>-C<sub>4</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl) and -SO<sub>2</sub> (C<sub>1</sub>-C<sub>6</sub> alkyl), and wherein each of the C<sub>1</sub>-C<sub>4</sub> alkyl and C<sub>1</sub>-C<sub>6</sub> alkyl, moieties in the foregoing R<sup>5</sup> groups may optionally be substituted with one or two substituents independently selected from fluoro, hydroxy, amino, methylamino, dimethylamino and acetyl; and furthermore

wherein when R<sup>5</sup> is phenyl or pyridyl substituted with three substituents, said substituents can further be selected from (C<sub>1</sub>-C<sub>4</sub> alkyl)O(C<sub>1</sub>-C<sub>4</sub> alkyl), OCF<sub>3</sub>, and fluoro, and one carbon-carbon single bond of each (C<sub>1</sub>-C<sub>4</sub>) alkyl group of said substituents having between two and four carbon atoms may be optionally replaced with a carbon-carbon double or triple bond; or R<sup>5</sup> is pyrimidyl substituted by three substituents independently selected from C<sub>1</sub>-C<sub>4</sub> alkyl, -O(C<sub>1</sub>-C<sub>4</sub> alkyl), CF<sub>3</sub>, OCF<sub>3</sub>, -CHO, (C<sub>1</sub>-C<sub>4</sub> alkyl)-OH, CN, Cl, F, Br, I and NO<sub>2</sub>, wherein a carbon-carbon single bond of said (C<sub>1</sub>-C<sub>4</sub>) alkyl groups having between two and four carbon atoms may optionally be replaced by a carbon-carbon double or triple bond;

R<sup>7</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, halo, cyano, hydroxy, O(C<sub>1</sub>-C<sub>4</sub> alkyl) -C(=O)(C<sub>1</sub>-C<sub>4</sub> alkyl), -C(=O)O(C<sub>1</sub>-C<sub>4</sub> alkyl), -OCF<sub>3</sub>, -CF<sub>3</sub>, -CH<sub>2</sub>-OH, -CH<sub>2</sub>O(C<sub>1</sub>-C<sub>4</sub> alkyl);

R<sup>10</sup> is hydrogen, hydroxy, methoxy or fluoro;

R<sup>11</sup> is hydrogen or C<sub>1</sub>-C<sub>4</sub> alkyl; and

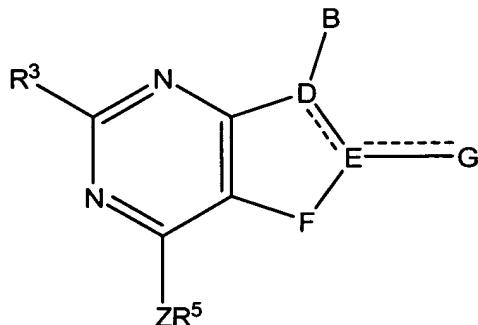
with the proviso that: (a) when R<sup>4</sup> is attached to nitrogen, it is not halo, cyano or nitro; and (b) ~~one of E, D and F must be nitrogen or substituted nitrogen, and only one of E, D and F can be nitrogen or substituted nitrogen;~~

Z is NH, oxygen, sulfur, -N(C<sub>1</sub>-C<sub>4</sub> alkyl), -NC(=O)(C<sub>1</sub>-C<sub>2</sub> alkyl), NC(-O)(=O)O(C<sub>1</sub>-C<sub>2</sub> alkyl) or CR<sup>13</sup>R<sup>14</sup> wherein R<sup>13</sup> and R<sup>14</sup> are independently selected from hydrogen, trifluoromethyl and methyl with the exception that one of R<sup>13</sup> and R<sup>14</sup> can be cyano;

or a pharmaceutically acceptable salt of such compound.

Claims 19 - 24 (cancelled)

Claim 25 (currently amended) A compound of the formula



wherein the dashed lines represent optional double bonds;

B is -NR<sup>1</sup>R<sup>2</sup>, -CR<sup>1</sup>R<sup>2</sup>R<sup>10</sup>, -C(=CR<sup>2</sup>R<sup>11</sup>)R<sup>1</sup>, -NHCR<sup>1</sup>R<sup>2</sup>R<sup>10</sup>, -OCR<sup>1</sup>R<sup>2</sup>R<sup>10</sup>, -SCR<sup>1</sup>R<sup>2</sup>R<sup>10</sup>, CR<sup>2</sup>R<sup>10</sup>NHR<sup>1</sup>, -CR<sup>2</sup>R<sup>10</sup>OR<sup>1</sup>, -CR<sup>2</sup>R<sup>10</sup>SR<sup>1</sup> or -COR<sup>2</sup>;

E is nitrogen, CH or carbon;

D is nitrogen and is single bonded to all atoms to which it is attached, or D is carbon and is double bonded to E, or D is CH and is single bonded to E;

F is CHR<sup>4</sup> or NR<sup>4</sup>; provided that either 1) exactly one of D or E is nitrogen and F is CHR<sup>4</sup> or 2) F is NR<sup>4</sup> and neither D nor E is nitrogen;

G, when single bonded to E is hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, -S(C<sub>1</sub>-C<sub>4</sub> alkyl), -O(C<sub>1</sub>-C<sub>4</sub> alkyl), NH<sub>2</sub>, -NH(C<sub>1</sub>-C<sub>4</sub> alkyl) or -N(C<sub>1</sub>-C<sub>2</sub> alkyl)(C<sub>1</sub>-C<sub>4</sub> alkyl) wherein each of the C<sub>1</sub>-C<sub>4</sub> alkyl groups of G may optionally be substituted by one hydroxy, -O(C<sub>1</sub>-C<sub>2</sub> alkyl) or fluoro group; and G when double bonded to E is oxygen, sulfur or NH; and G, when E is nitrogen and double bonded to D, is absent;

R<sup>1</sup> is hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with one or two substituents R<sup>8</sup> independently selected from hydroxy, fluoro, chloro, bromo, iodo, C<sub>1</sub>-C<sub>4</sub> alkoxy, CF<sub>3</sub>, -C(=O)O-(C(=O)O-(C<sub>1</sub>-C<sub>4</sub>) alkyl, -OC(=O)(C<sub>1</sub>-C<sub>4</sub>) alkyl, OC(=O)N(C<sub>1</sub>-C<sub>4</sub> alkyl)(C<sub>1</sub>-C<sub>2</sub> alkyl), -NHCO(C<sub>1</sub>-C<sub>4</sub> alkyl), -COOH, -COO(C<sub>1</sub>-C<sub>4</sub> alkyl), -CONH(C<sub>1</sub>-C<sub>4</sub> alkyl), -CON(C<sub>1</sub>-C<sub>4</sub> alkyl)(C<sub>1</sub>-C<sub>2</sub> alkyl), -S(C<sub>1</sub>-C<sub>4</sub> alkyl), -CN, NO<sub>2</sub>, -SO(C<sub>1</sub>-C<sub>4</sub> alkyl), -SO<sub>2</sub>(C<sub>1</sub>-C<sub>4</sub> alkyl), -SO<sub>2</sub>NH(C<sub>1</sub>-C<sub>4</sub> alkyl), SO<sub>2</sub>N(C<sub>1</sub>-C<sub>4</sub> alkyl)(C<sub>1</sub>-C<sub>2</sub> alkyl), wherein a carbon-carbon single bond of each of the C<sub>1</sub>-C<sub>4</sub> alkyl groups in the foregoing R<sup>1</sup> groups having at least two carbons may optionally be replaced with a carbon-carbon double or triple bond, and one or two carbon-carbon single bonds of each of the C<sub>1</sub>-C<sub>4</sub> alkyl groups in the foregoing R<sup>1</sup> groups having four carbon atoms may optionally be replaced with a carbon-carbon double or triple bond; R<sup>2</sup> is C<sub>1</sub>-C<sub>12</sub> alkyl wherein one carbon-carbon single bond of any said alkyl group having at least two carbons, one or two carbon-carbon single bonds of any alkyl having at least four carbons, and from one to three carbon-carbon single bonds of any said alkyl having at least six carbons may optionally be replaced with a carbon-carbon double or triple bond; or R<sup>2</sup> is aryl or (C<sub>1</sub>-C<sub>4</sub> alkylene)aryl, wherein said aryl and the aryl moiety of said (C<sub>1</sub>-C<sub>4</sub> alkylene)aryl is selected from phenyl, naphthyl, thienyl, benzothienyl, pyridyl, quinolyl, pyrazinyl, pyrimidinyl, imidazolyl, furanyl, benzofuranyl, benzothiazolyl, isothiazolyl, pyrazolyl, pyrrolyl, indolyl, pyrrolopyridyl, oxazolyl and benzoxazolyl; or R<sup>2</sup> is C<sub>3</sub>-C<sub>8</sub> cycloalkyl or (C<sub>1</sub>-C<sub>6</sub> alkylene)(C<sub>3</sub>-C<sub>8</sub> cycloalkyl), wherein one or two of the carbon atoms of said cycloalkyl and the 5 to 8 membered cycloalkyl moieties of said (C<sub>1</sub>-C<sub>6</sub> alkylene)(C<sub>3</sub>-C<sub>8</sub> cycloalkyl) may optionally and independently be replaced by an oxygen or sulfur atom or by NZ<sup>2</sup> wherein Z<sup>2</sup> is selected from hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, benzyl and C<sub>1</sub>-C<sub>4</sub> alkanoyl, and wherein each of the foregoing R<sup>2</sup> groups may optionally be substituted with from one to three substituents independently selected from chloro, fluoro, hydroxy and C<sub>1</sub>-C<sub>4</sub> alkyl, or with one substituent selected from bromo, iodo, C<sub>1</sub>-C<sub>6</sub> alkoxy, -OC(=O)(C<sub>1</sub>-C<sub>6</sub> alkyl), OC(=O)N(C<sub>1</sub>-C<sub>4</sub> alkyl)(C<sub>1</sub>-C<sub>2</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl), amino, -NH(C<sub>1</sub>-C<sub>2</sub> alkyl), -N(C<sub>1</sub>-C<sub>2</sub> alkyl)(C<sub>1</sub>-C<sub>4</sub> alkyl), -N(C<sub>1</sub>-C<sub>4</sub> alkyl)-CO-(C<sub>1</sub>-C<sub>4</sub> alkyl), -NHCO(C<sub>1</sub>-C<sub>4</sub> alkyl), -COOH, -COO(C<sub>1</sub>-C<sub>4</sub> alkyl), -CONH(C<sub>1</sub>-C<sub>4</sub> alkyl), CON(C<sub>1</sub>-C<sub>4</sub> alkyl)(C<sub>1</sub>-C<sub>2</sub> alkyl), -SH, -CN, -NO<sub>2</sub>, -SO(C<sub>1</sub>-C<sub>4</sub> alkyl), -SO<sub>2</sub>(C<sub>1</sub>-C<sub>4</sub> alkyl), -SO<sub>2</sub>NH(C<sub>1</sub>-C<sub>4</sub> alkyl) and -SO<sub>2</sub>N(C<sub>1</sub>-C<sub>4</sub> alkyl)(C<sub>1</sub>-C<sub>2</sub> alkyl); NR<sup>1</sup>R<sup>2</sup> may form a 3 to 8 membered ring, said ring consisting of single bonds, wherein, when said ring has from 5 to 8 members, one or two of the ring carbon atoms of such a 5 to 8 membered ring may optionally and independently be replaced by an oxygen or sulfur atom or by NZ<sup>3</sup> wherein Z<sup>3</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, benzyl and C<sub>1</sub>-C<sub>4</sub> alkanoyl, and wherein from one to three of the

single bonds of such a 3 to 8 membered ring that are carbon-carbon or carbon-nitrogen single bonds may each optionally be replaced by a double bond;

or  $-CR^1R^2R^{10}$  may form a 3 to 8 membered carbocyclic ring, said ring consisting of single bonds, wherein from one to three of the single bonds of such a 3 to 8 membered ring may each optionally be replaced by a double bond;

$R^3$  is hydrogen,  $C_1-C_4$  alkyl,  $O(C_1-C_4$  alkyl), chloro, fluoro, bromo, iodo,  $-CN$ ,  $-S(C_1-C_4$  alkyl) or  $-SO_2(C_1-C_4$  alkyl) wherein each of the  $(C_1-C_4$  alkyl) moieties in the foregoing  $R^3$  groups may optionally be substituted with one substituent  $R^9$  selected from hydroxy, fluoro and  $(C_1-C_2$  alkoxy);

each of  $R^4$  is, independently hydrogen,  $(C_1-C_6$  alkyl), fluoro, chloro, bromo, iodo, hydroxy, cyano, amino, nitro,  $-O(C_1-C_4$  alkyl),  $N(C_1-C_4$  alkyl) $(C_1-C_2$  alkyl),  $-S(C_1-C_4$  alkyl),  $-SO(C_1-C_4$  alkyl),  $-SO_2(C_1-C_4$  alkyl),  $-CO(C_1-C_4$  alkyl),  $-C(=O)H$  or  $C(=O)O(C_1-C_4$  alkyl), wherein one or two of the carbon-carbon single bonds in each of the  $(C_1-C_6$  alkyl) and  $(C_1-C_4$  alkyl) moieties in the foregoing  $R^4$  groups may optionally be replaced with a carbon-carbon double or triple bond and wherein each of said  $(C_1-C_6$  alkyl) and  $(C_1-C_4$  alkyl) moieties may optionally be substituted with one or two substituents independently selected from hydroxy, amino,  $C_1-C_3$  alkoxy, dimethylamino, methylamino, ethylamino,  $-NHC(=O)CH_3$ , fluoro, chloro,  $-CN$ ,  $-COOH$ ,  $-C(=O)O(C_1-C_4$  alkyl),  $-C(=O)(C_1-C_4$  alkyl) and  $NO_2$ ;

$R^5$  is phenyl, naphthyl, thienyl, benzothienyl, pyridyl, quinolyl, pyrazinyl, furanyl, benzofuranyl, benzothiazolyl, benzisothiazolyl, benzisoxazolyl, benzimidazolyl, indolyl, benzoxazolyl or  $C_3-C_8$  cycloalkyl wherein one or two of the carbon atoms of said cycloalkyl rings that contain at least 5 ring members may optionally and independently be replaced by an oxygen or sulfur atom or by  $NZ^4$  wherein  $N^4$  is hydrogen,  $C_1-C_4$  is alkyl or benzyl; and wherein each of the foregoing  $R^5$  groups is substituted with from one to four substituents wherein one to three of said substituents may be selected, independently, from chloro,  $C_1-C_6$  alkyl and  $-O(C_1-C_6$  alkyl) and one of said substituents may be selected from bromo, iodo, formyl,  $-CN$ ,  $-CF_3$ ,  $-NO_2$ ,  $-NH_2$ ,  $-NH(C_1-C_4$  alkyl),  $-N(C_1-C_2$  alkyl) $(C_1-C_6$  alkyl),  $-C(=O)O(C_1-C_4$  alkyl),  $-C(=O)(C_1-C_4$  alkyl),  $-COOH$ ,  $-SO_2NH(C_1-C_4$  alkyl),  $-SO_2N(C_1-C_2$  alkyl) $(C_1-C_4$  alkyl),  $-SO_2NH_2$ ,  $NHSO_2(C_1-C_4$  alkyl),  $S(C_1-C_6$  alkyl) and  $-SO_2(C_1-C_6$  alkyl), and wherein each of the  $C_1-C_4$  alkyl and  $C_1-C_6$  alkyl, moieties in the foregoing  $R^5$  groups may optionally be substituted with one or two substituents independently selected from fluoro, hydroxy, amino, methylamino, dimethylamino and acetyl;

$R^7$  is hydrogen,  $C_1-C_4$  alkyl, halo, cyano, hydroxy,  $-O(C_1-C_4$  alkyl),  $-C(=O)(C_1-C_4$  alkyl),  $-C(=O)O(C_1-C_4$  alkyl),  $-OCF_3$ ,  $-CF_3$ ,  $-CH_2OH$ ,  $-CH_2O(C_1-C_4$  alkyl);

$R^{10}$  is hydrogen, hydroxy, methoxy or fluoro;

$R^{11}$  is hydrogen or  $C_1-C_4$  alkyl; and

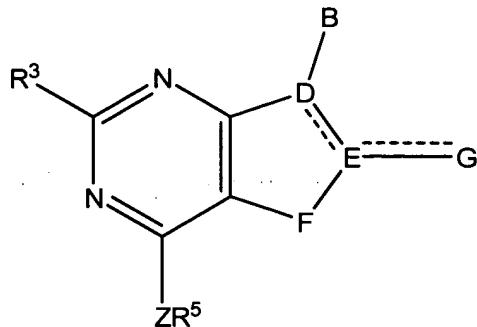
with the proviso that: (a) when R<sup>4</sup> is attached to nitrogen, it is not halo, cyano or nitro; and  
~~(b) one of E, D and F must be nitrogen or substituted nitrogen, and only one of E, D and F can be nitrogen or substituted nitrogen;~~

Z is NH, oxygen, sulfur, -N(C<sub>1</sub>-C<sub>4</sub> alkyl), -NC(=O)(C<sub>1</sub>-C<sub>2</sub> alkyl), NC(-O)(=O)O(C<sub>1</sub>-C<sub>2</sub> alkyl) or CR<sup>13</sup>R<sup>14</sup> wherein R<sup>13</sup> and R<sup>14</sup> are independently selected from hydrogen, trifluoromethyl and methyl with the exception that one of R<sup>13</sup> and R<sup>14</sup> can be cyano;

or a pharmaceutically acceptable salt of such compound.

Claim 26-27 (cancelled)

Claim 28 (currently amended) A compound of the formula



wherein the dashed lines represent optional double bonds;

B is -NR<sup>1</sup>R<sup>2</sup>, -CR<sup>1</sup>R<sup>2</sup>R<sup>10</sup>, -C(=CR<sup>2</sup>R<sup>11</sup>)R<sup>1</sup>, -NHCR<sup>1</sup>R<sup>2</sup>R<sup>10</sup>, -OCR<sup>1</sup>R<sup>2</sup>R<sup>10</sup>, -SCR<sup>1</sup>R<sup>2</sup>R<sup>10</sup>, CR<sup>2</sup>R<sup>10</sup>NHR<sup>1</sup>, -CR<sup>2</sup>R<sup>10</sup>OR<sup>1</sup>, -CR<sup>2</sup>R<sup>10</sup>SR<sup>1</sup> or -COR<sup>2</sup>;

E is nitrogen, CH or carbon;

D is nitrogen and is single bonded to all atoms to which it is attached, or D is carbon and is double bonded to E, or D is CH and is single bonded to E;

F is CHR<sup>4</sup> or NR<sup>4</sup>, provided that either 1) exactly one of D or E is nitrogen and F is CHR<sup>4</sup> or 2) F is NR<sup>4</sup> and neither D nor E is nitrogen

G, when single bonded to E is hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, -S(C<sub>1</sub>-C<sub>4</sub> alkyl), -O(C<sub>1</sub>-C<sub>4</sub> alkyl), NH<sub>2</sub>, -NH(C<sub>1</sub>-C<sub>4</sub> alkyl) or -N(C<sub>1</sub>-C<sub>2</sub> alkyl)(C<sub>1</sub>-C<sub>2</sub> alkyl) wherein each of the C<sub>1</sub>-C<sub>4</sub> alkyl groups of G may optionally be substituted by one hydroxy, -O(C<sub>1</sub>-C<sub>2</sub> alkyl) or fluoro group; and G when double bonded to E is oxygen, sulfur or NH; and G, when E is nitrogen and double bonded to D, is absent;

R<sup>1</sup> is C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted with one substituent selected from hydroxy, fluoro, CF<sub>3</sub>, or C<sub>1-4</sub> alkoxy wherein a carbon-carbon single bond of each of the C<sub>1</sub>-C<sub>4</sub> alkyl groups in the foregoing R<sub>1</sub> groups having at least two carbons may optionally be replaced with a carbon-carbon double or triple bond, R<sup>2</sup> is benzyl or C<sub>1-6</sub> alkyl which may optionally contain one double or triple bond and wherein said C<sub>1-6</sub> alkyl and the phenyl moiety of said benzyl may optionally be substituted with one fluoro, Cf<sub>3</sub>, C<sub>1</sub>-C<sub>2</sub> alkyl, C<sub>1</sub>-C<sub>2</sub> alkoxy or chloro group.;

-NR<sup>1</sup>R<sup>2</sup> may form a 3 to 8 membered ring, said ring consisting of single bonds, wherein, when said ring has from 5 to 8 members, one or two of the ring carbon atoms of such a 5 to 8

membered ring may optionally and independently be replaced by an oxygen or sulfur atom or by NZ<sup>3</sup> wherein Z<sup>3</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, benzyl and C<sub>1</sub>-C<sub>4</sub> alkanoyl, and wherein from one to three of the single bonds of such a 3 to 8 membered ring that are carbon-carbon or carbon-nitrogen single bonds may each optionally be replaced by a double bond;

or -CR<sup>1</sup>R<sup>2</sup>R<sup>10</sup> may form a 3 to 8 membered carbocyclic ring, said ring consisting of single bonds, wherein from one to three of the single bonds of such a 3 to 8 membered ring that are carbon-carbon or carbon-nitrogen single bonds may each optionally be replaced by a double bond;

R<sup>3</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, O(C<sub>1</sub>-C<sub>4</sub> alkyl), chloro, fluoro, bromo, iodo, -CN, -S(C<sub>1</sub>-C<sub>4</sub> alkyl) or -SO<sub>2</sub>(C<sub>1</sub>-C<sub>4</sub> alkyl) wherein each of the (C<sub>1</sub>-C<sub>4</sub> alkyl) moieties in the foregoing R<sup>3</sup> groups may optionally be substituted with one substituent R<sup>9</sup> selected from hydroxy, fluoro and (C<sub>1</sub>-C<sub>2</sub> alkoxy);

each of R<sup>4</sup> is, independently hydrogen, (C<sub>1</sub>-C<sub>6</sub> alkyl), fluoro, chloro, bromo, iodo, hydroxy, cyano, amino, nitro, -O(C<sub>1</sub>-C<sub>4</sub> alkyl), N (C<sub>1</sub>-C<sub>4</sub> alkyl)(C<sub>1</sub>-C<sub>2</sub> alkyl), -S(C<sub>1</sub>-C<sub>4</sub> alkyl), -SO(C<sub>1</sub>-C<sub>4</sub> alkyl), -SO<sub>2</sub>(C<sub>1</sub>-C<sub>4</sub> alkyl), -CO(C<sub>1</sub>-C<sub>4</sub> alkyl), -C(=O)H or C(=O)O (C<sub>1</sub>-C<sub>4</sub> alkyl), wherein one or two of the carbon-carbon single bonds in each of the (C<sub>1</sub>-C<sub>6</sub> alkyl) and (C<sub>1</sub>-C<sub>4</sub> alkyl) moieties in the foregoing R<sup>4</sup> groups may optionally be replaced with a carbon-carbon double or triple bond and wherein each of said (C<sub>1</sub>-C<sub>6</sub> alkyl) and (C<sub>1</sub>-C<sub>4</sub> alkyl) moieties may optionally be substituted with one or two substituents independently selected from hydroxy, amino, C<sub>1</sub>-C<sub>3</sub> alkoxy, dimethylamino, methylamino, ethylamino, -NHC(=O)CH<sub>3</sub>, fluoro, chloro, -CN, -COOH, -C(=O)O(C<sub>1</sub>-C<sub>4</sub> alkyl), -C(=O)(C<sub>1</sub>-C<sub>4</sub> alkyl) and NO<sub>2</sub>;

R<sup>5</sup> is phenyl, naphthyl, thienyl, benzothienyl, pyridyl, quinolyl, pyrazinyl, furanyl, benzofuranyl, benzothiazolyl, benzisothiazolyl, benzisoxazolyl, benzimidazolyl, indolyl, benzoxazolyl or C<sub>3</sub>-C<sub>8</sub> cycloalkyl wherein one or two of the carbon atoms of said cycloalkyl rings that contain at least 5 ring members may optionally and independently be replaced by an oxygen or sulfur atom or by NZ<sup>4</sup> wherein N<sup>4</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub> is alkyl or benzyl; and wherein each of the foregoing R<sup>5</sup> groups is substituted with from one to four substituents wherein one to three of said substituents may be selected, independently, from chloro, C<sub>1</sub>-C<sub>6</sub> alkyl and -O(C<sub>1</sub>-C<sub>6</sub> alkyl) and one of said substituents may be selected from bromo, iodo, formyl, -CN, -CF<sub>3</sub>, -NO<sub>2</sub>, -NH<sub>2</sub>, -NH(C<sub>1</sub>-C<sub>4</sub> alkyl), -N(C<sub>1</sub>-C<sub>2</sub> alkyl)(C<sub>1</sub>-C<sub>6</sub> alkyl), -C(=O)O(C<sub>1</sub>-C<sub>4</sub> alkyl), -C(=O)(C<sub>1</sub>-C<sub>4</sub> alkyl), -COOH, -SO<sub>2</sub>NH(C<sub>1</sub>-C<sub>4</sub> alkyl), -SO<sub>2</sub>N (C<sub>1</sub>-C<sub>2</sub> alkyl) (C<sub>1</sub>-C<sub>4</sub> alkyl), -SO<sub>2</sub>NH<sub>2</sub>, NHSO<sub>2</sub> (C<sub>1</sub>-C<sub>4</sub> alkyl), -S(C<sub>1</sub>-C<sub>6</sub> alkyl) and -SO<sub>2</sub> (C<sub>1</sub>-C<sub>6</sub> alkyl), and wherein each of the C<sub>1</sub>-C<sub>4</sub> alkyl and C<sub>1</sub>-C<sub>6</sub> alkyl, moieties in the foregoing R<sup>5</sup> groups may optionally be substituted with one or two substituents independently selected from fluoro, hydroxy, amino, methylamino, dimethylamino and acetyl;

R<sup>7</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, halo, cyano, hydroxy, -O(C<sub>1</sub>-C<sub>4</sub> alkyl) -C(=O)(C<sub>1</sub>-C<sub>4</sub> alkyl), -C(=O)O(C<sub>1</sub>-C<sub>4</sub> alkyl), -OCF<sub>3</sub>, -CF<sub>3</sub>, -CH<sub>2</sub>OH, -CH<sub>2</sub>O(C<sub>1</sub>-C<sub>4</sub> alkyl);

R<sup>10</sup> is hydrogen, hydroxy, methoxy or fluoro;

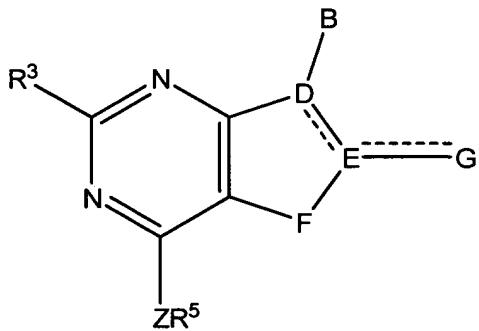
$R^{11}$  is hydrogen or  $C_1$ - $C_4$  alkyl; and

with the proviso that: (a) when  $R^4$  is attached to nitrogen, it is not halo, cyano or nitro; and  
~~(b) one of E, D and F must be nitrogen or substituted nitrogen, and only one of E, D and F can be nitrogen or substituted nitrogen;~~

$Z$  is NH, oxygen, sulfur,  $-N(C_1-C_4\text{ alkyl})$ ,  $-NC(=O)(C_1-C_2\text{ alkyl})$ ,  $NC(-O)(=O)O(C_1-C_2\text{ alkyl})$  or  $CR^{13}R^{14}$  wherein  $R^{13}$  and  $R^{14}$  are independently selected from hydrogen, trifluoromethyl and methyl with the exception that one of  $R^{13}$  and  $R^{14}$  can be cyano;

or a pharmaceutically acceptable salt of such compound.

Claim 29 (currently amended) A compound of the formula



wherein the dashed lines represent optional double bonds;

B is  $-NR^1R^2$ ,  $-CR^1R^2R^{10}$ ,  $-C(=CR^2R^{11})R^1$ ,  $-NHCR^1R^2R^{10}$ ,  $-OCR^1R^2R^{10}$ ,  $-SCR^1R^2R^{10}$ ,  $CR^2R^{10}NHR^1$ ,  $-CR^2R^{10}OR^1$ ,  $-CR^2R^{10}SR^1$  or  $-COR^2$ ;

E is nitrogen, CH or carbon;

D is nitrogen and is single bonded to all atoms to which it is attached, or D is carbon and is double bonded to E, or D is CH and is single bonded to E;

F is  $CHR^4$  or  $NR^4$ ; provided that either 1) exactly one of D or E is nitrogen and F is  $CHR^4$  or 2) F is  $NR^4$  and neither D nor E is nitrogen;

G is hydrogen, methyl or ethyl or E=G is C=O or C=S;

$R^1$  is hydrogen,  $C_1$ - $C_6$  alkyl optionally substituted with one or two substituents  $R^8$  independently selected from hydroxy, fluoro, chloro, bromo, iodo,  $C_1$ - $C_4$  alkoxy,  $CF_3$ ,  $-C(=O)O(C_1-C_4)\text{alkyl}$ ,  $-OC(=O)(C_1-C_4)\text{alkyl}$ ,  $OC(=O)N(C_1-C_4\text{ alkyl})(C_1-C_2\text{ alkyl})$ ,  $-NHCO(C_1-C_4\text{ alkyl})$ ,  $-COOH$ ,  $-COO(C_1-C_4\text{ alkyl})$ ,  $-CONH(C_1-C_4\text{ alkyl})$ ,  $-CON(C_1-C_4\text{ alkyl})(C_1-C_2\text{ alkyl})$ ,  $-S(C_1-C_4\text{ alkyl})$ ,  $-CN$ ,  $NO_2$ ,  $-SO(C_1-C_4\text{ alkyl})$ ,  $-SO_2(C_1-C_4\text{ alkyl})$ ,  $-SO_2NH(C_1-C_4\text{ alkyl})$ ,  $SO_2N(C_1-C_4\text{ alkyl})(C_1-C_2\text{ alkyl})$ , wherein a carbon-carbon single bond of each of the  $C_1$ - $C_4$  alkyl groups in the foregoing  $R^1$  groups having at least two carbons may optionally be replaced with a carbon-carbon double or triple bond, and one or two carbon-carbon single bonds of each of the  $C_1$ - $C_4$  alkyl groups in the foregoing  $R^1$  groups having four carbon atoms may optionally be replaced with a carbon-carbon double or triple bond;  $R^2$  is  $C_1$ - $C_{12}$  alkyl wherein one carbon-carbon single bond of any said alkyl group having at least two carbons, one or two carbon-carbon single bonds of any alkyl having at least four carbons, and from one to three carbon-carbon single bonds of any said alkyl having at

least six carbons may optionally be replaced with a carbon-carbon double or triple bond; or  $R^2$  is aryl or ( $C_1$ - $C_4$  alkylene)aryl, wherein said aryl and the aryl moiety of said ( $C_1$ - $C_4$  alkylene)aryl is selected from phenyl, naphthyl, thiienyl, benzothienyl, pyridyl, quinolyl, pyrazinyl, pyrimidinyl, imidazolyl, furanyl, benzofuranyl, benzothiazolyl, isothiazolyl, pyrazolyl, pyrrolyl, indolyl, pyrrolopyridyl, oxazolyl and benzoxazolyl; or  $R^2$  is  $C_3$ - $C_8$  cycloalkyl or ( $C_1$ - $C_6$  alkylene)( $C_3$ - $C_8$  cycloalkyl), wherein one or two of the carbon atoms of said cycloalkyl and the 5 to 8 membered cycloalkyl moieties of said ( $C_1$ - $C_6$  alkylene)( $C_3$ - $C_8$  cycloalkyl) may optionally and independently be replaced by an oxygen or sulfur atom or by  $NZ^2$  wherein  $Z^2$  is selected from hydrogen,  $C_1$ - $C_4$  alkyl, benzyl and  $C_1$ - $C_4$  alkanoyl, and wherein each of the foregoing  $R^2$  groups may optionally be substituted with from one to three substituents independently selected from chloro, fluoro, hydroxy and  $C_1$ - $C_4$  alkyl, or with one substituent selected from bromo, iodo,  $C_1$ - $C_6$  alkoxy, - $OC(=O)(C_1$ - $C_6$  alkyl),  $OC(=O)N(C_1$ - $C_4$  alkyl)( $C_1$ - $C_2$  alkyl), - $S(C_1$ - $C_6$  alkyl), amino, - $NH(C_1$ - $C_2$  alkyl), - $N(C_1$ - $C_2$  alkyl)( $C_1$ - $C_4$  alkyl), - $N(C_1$ - $C_4$  alkyl)-CO-( $C_1$ - $C_4$  alkyl), - $NHCO(C_1$ - $C_4$  alkyl), - $COOH$ , - $COO(C_1$ - $C_4$  alkyl), - $CONH(C_1$ - $C_4$  alkyl),  $CON(C_1$ - $C_4$  alkyl)( $C_1$ - $C_2$  alkyl), - $SH$ , - $CN$ , - $NO_2$ , - $SO(C_1$ - $C_4$  alkyl), - $S_2(C_1$ - $C_4$  alkyl), - $SO_2NH(C_1$ - $C_4$  alkyl) and - $SO_2N(C_1$ - $C_4$  alkyl)( $C_1$ - $C_2$  alkyl);

- $NR^1R^2$  may form a 3 to 8 membered ring, said ring consisting of single bonds, wherein, when said ring has from 5 to 8 members, one or two of the ring carbon atoms of such a 5 to 8 membered ring may optionally and independently be replaced by an oxygen or sulfur atom or by  $NZ^3$  wherein  $Z^3$  is hydrogen,  $C_1$ - $C_4$  alkyl, benzyl and  $C_1$ - $C_4$  alkanoyl, and wherein from one to three of the single bonds of such a 3 to 8 membered ring that are carbon-carbon or carbon-nitrogen single bonds may each optionally be replaced by a double bond;

or - $CR^1R^2R^{10}$  may form a 3 to 8 membered carbocyclic ring, said ring consisting of single bonds, wherein from one to three of the single bonds of such a 3 to 8 membered ring that are carbon-carbon or carbon-nitrogen single bonds may each optionally be replaced by a double bond;

$R^3$  is methyl, ethyl, chloro or methoxy;

each of  $R^4$  is methyl, ethyl or trifluoro methyl;

$R^5$  is phenyl or pyridyl,

$R^7$  is hydrogen,  $C_1$ - $C_4$  alkyl, halo, cyano, hydroxy, - $O(C_1$ - $C_4$  alkyl) - $C(=O)(C_1$ - $C_4$  alkyl), - $C(=O)O(C_1$ - $C_4$  alkyl), - $OCF_3$ , - $CF_3$ , - $CH_2OH$ , - $CH_2O(C_1$ - $C_4$  alkyl);

$R^{10}$  is hydrogen, hydroxy, methoxy or fluoro;

$R_{11}$  is hydrogen or  $C_1$ - $C_4$  alkyl; and

with the proviso that: (a) when  $R^4$  is attached to nitrogen, it not halo, cyano or nitro; and (b) ~~one of E, D and F must be nitrogen or substituted nitrogen, and only one of E, D and F can be nitrogen or substituted nitrogen;~~

Z is NH, oxygen, sulfur, -N(C<sub>1</sub>-C<sub>4</sub> alkyl), -NC(=O)(C<sub>1</sub>-C<sub>2</sub> alkyl), NC(-O)(=O)O(C<sub>1</sub>-C<sub>2</sub> alkyl)  
or CR<sup>13</sup> R<sup>14</sup> wherein R<sup>13</sup> and R<sup>14</sup> are independently selected from hydrogen, trifluoromethyl and  
methyl with the exception that one of R<sup>13</sup> and R<sup>14</sup> can be cyano;  
or a pharmaceutically acceptable salt of such compound.